

REMARKS

Upon entry of the present amendment claims 1-5, 7-10, and 12-22 are pending in the application. Claims 1 and 21 have been amended in accordance with the requirements of U.S. patent practice. Claim 2 has been canceled and claim 22 added.

Amendments to the claims, as set forth above, are made in order to streamline prosecution in this case by limiting examination and argument to certain claimed embodiments that presently are considered to be of immediate commercial significance. Amendment of the claims is not in any manner intended to, and should not be construed to, waive Applicants' right in the future to seek such unamended subject matter, or similar matter (whether in equivalent, broader, or narrower form) in the present application, and any continuation, divisional, continuation-in-part, RCE, or any other application claiming priority to or through the present application, nor in any manner to indicate an intention, expressed or implied, to surrender any equivalent to the claims as pending after such amendments.

Reconsideration is respectfully requested in view of the foregoing amendment and the following remarks.

1. **Rejection of claims 1-5, 7-10, and 12-22 under 35 U.S.C. §103(a), as obvious over Hellmann et al. (US 2003/0105230), hereafter "Hellmann".**

Applicants greatly appreciate the PTO's detailed comments but must respectfully disagree and traverse this rejection, at least to the extent that it applies to independent claims 1 and 21 as herein amended.

Hellman generally discloses a modular system for the production of coating compositions for coating plastics comprising the following component modules: A) at least one base module containing at least one binder, extenders and/or pigments, optionally together with conventional coating additives, water and/or organic solvents, B) at least one adhesion module containing at least one adhesion-promoting component optionally together with binders, conventional coating additives, extenders, organic solvents and/or water, C) at least one elasticity module containing at least one elasticising component optionally together with conventional coating additives,

extenders, organic solvents and/or water and D) at least one binder module containing at least one binder optionally together with additives, organic solvents and/or water. (Abstract).

The PTO's rejection must be considered in light of the foregoing claim amendments. Claims 1 and 21 now recite the limitations that "components (I), (II), and (III) are anhydrous", and that "components (I) and (II) do not display phase separation for at least three months, and do not display any irreversible inhomogeneities for at least eight months." Support for the former limitation can be found at least on p. 10, ll. 9-11, and in Examples 1-4 on p. 14, l. 24 to p. 20, l. 16 of the present application. Support for the latter limitation can be found at least on p. 4, ll. 4-10; p. 17, ll. 8-10; and p. 17, ll. 25-27.

Regarding the "anhydrous" limitation, the PTO alleges

... all of the components of Hellmann can contain either organic solvents or water (§0009-12). Additionally, the modular system according to the invention may be used for the production of aqueous or solvent-based coating compositions (§0016). At the time of the invention a person of ordinary skill in the art would have found it obvious to have omitted water, in order to make a solvent-based coating composition.

Applicants greatly appreciate the PTO's detailed comments but must respectfully disagree. The PTO has not established any motivation for the skilled person in the art to eliminate water from the compositions of Hellmann, and to limit the solvents to organic solvents.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, or knowledge generally available in the art at the time of the invention, must provide some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). "A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art." *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007). To find obviousness, the Examiner must "identify a reason that would have prompted a person of ordinary skill in

the art in the relevant field to combine the elements in the way the claimed new invention does.” *Id.*

The skilled person in the art understands that organic solvents contribute to the volatile organic content (VOC) of a coating composition. Since the organic solvents evaporate during drying of the paint, they contribute to air pollution. Water is a non-polluting, environmentally safe, and effective replacement for organic solvents in coating compositions. Moreover, in many areas, there are statutory limits on the amount of VOC's that are permitted in paints. For these reasons, the skilled person in the coatings art is motivated to replace organic solvents with water, not to remove water from the composition. Thus when the skilled person is faced with the choice of “organic solvents and/or water” as presented by the teachings of Hellmann, he is motivated to choose water instead of organic solvents. Contrary to this motivation, the present application requires the choice of organic solvents alone, not water. Since no motivation to choose organic solvents over water can be inferred from Hellmann and the general state of the art at the time the invention was made, Applicants respectfully submit that the claims are non-obvious over Hellman.

The present claims are also not obvious over Hellmann because Hellmann is silent on the limitation that “components (I) and (II) do not display phase separation for at least three months and do not display any irreversible inhomogeneities for at least eight months.”

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Establishing a prima facie case of obviousness requires that all limitations of the claim be taught or suggested by the prior art. See, e.g., *CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003); *In re Royka*, 490 F.2d 981, 985 (C.C.P.A. 1974).

Hellmann is silent on the storage stability for any of the modules (A), (B), (C), (D), and (E). The applicant discusses the general state of the art at the time the invention was made on p. 1, l. 26 to p. 2, l. 5:

Additionally the storage stability of the polyisocyanate-curable component leaves something to be desired. Thus after two to three months of storage

it is prone to severe phase separation and to sedimentation of the chlorinated polyolefin together with the additives present, such as adjuvants, pigments and fillers. In order to be at all useful the polyisocyanate-curable component must be homogenized again by intensive stirring, which occasions additional costs in the paintshop. After six to eight months of storage there is irreversible formation of inhomogeneities, rendering the polyisocyanate-curable component completely unusable.

Hellman is silent on the storage stability of the modules (A), (B), (C), (D), and (E), but based on the state of the art as summarized by the Applicant, it is expected to be less than six to eight months overall, i.e. the compositions will develop irreversible inhomogeneities within six to eight months. In particular, Base Module A of Hellman, as exemplified by composition given in the table bridging the columns on p. 6, is expected to have poor storage stability. The composition comprises three incompatible phases: deionized water (present in the water-dilutable amino- and hydroxy-functional methacrylate resin and added separately); organic solvents (Solvesso 150, and Kristalloeel 30 (white mineral spirits)), and particulate fillers and pigment (barium sulfate, aluminum hydrosilicate, and titanium dioxide).

Since Hellman fails to teach all the limitations of claims 1 and 21 as herein amended, in particular that “components (I) and (II) do not display phase separation for at least three months and do not display any irreversible inhomogeneities for at least eight months,” Applicants respectfully submit that a prima facie case of obviousness is not made.

For the above reasons, the absence of sufficient motivation for the skilled person in the art to elect to remove water from the compositions of Hellman, and the failure of Hellmann to teach all the limitations of the claims, in particular that components (I) and (II) do not display phase separation for at least three months and do not display any irreversible inhomogeneities for at least eight months, Applicants submit that claims 1 and 21, and the claims dependent thereon or incorporating all the limitations of claim 1, are not obvious over Hellmann. Therefore reconsideration and removal of the 35 U.S.C. § 103(a) rejection is respectfully requested.

The PTO also alleges, “Considering Claims 2-3: Hellman et al. teaches the solids content of solutions of chlorinated polyolefins being 18-60 wt-% (§0045).” Applicants greatly appreciate the PTO's comments but must respectfully disagree, at least to the extent the rejection applies to claim 3. Claims 2 and 3 do not recite the solids content of solutions of chlorinated polyolefins as obtained from suppliers. Rather the concentrations therein refer to the overall concentration of chlorinated polyolefin in component (II), which comprises at least one chlorinated polyolefin and at least one added organic solvent, based on its total amount.

Although Hellmann addresses the concentration of chlorinated polyolefin in the commercially available solutions (§45), Hellman is silent on the concentration range of chlorinated polyolefin in adhesion module (B), based on its total amount, including organic solvents and/or water together with further conventional coating additives and/or extenders. Hellman does disclose a single value for chlorinated polyolefin concentration based on the total amount of adhesion module (B) in the table bridging the two columns on p. 6. Fifteen grams of chlorinated polyolefin at 40% solids (6 grams) is contained in 100 grams of total amount of (B), for a concentration of 6% by weight.

In contrast, claim 3 recites that the concentration of chlorinated polyolefin is 10 to 35% by weight, based on the total weight of component (II). Therefore the concentration disclosed in Hellman is significantly below the lower limit of the range recited in claim 3. Since Hellmann does not disclose all the elements of claim 3, in particular this concentration range, reconsideration and removal of the obviousness rejection of claim 3 over Hellman is respectfully requested.

Finally, Applicants' note that the language of new claim 23 requires the presence of only three components. Support for this requirement may be found through the Specification and particularly in the Examples 1 and 2. Accordingly, new claim 23 is outside the scope of Hellman's disclosures which teach the necessity of at least four components having compositions different than those of Applicants as discussed above.

2. Rejection of claims 19-20 under 35 U.S.C. §103(a), as unpatentable over Hellmann et al. (US 2003/0105230), as applied to claims 1, 13, and 17, and further in view of Merritt et al. (US 6,939,916), hereafter “Merritt”.

The PTO concedes that Hellmann does not teach a system producing a film thickness of up to 10 μm . Merritt is, therefore, cited for teaching adhesion promoter coatings based on chlorinated polyolefins applied at a thickness of 0.254 to 127 μm .

Applicants greatly appreciate the PTO's comments, but respectfully submit that this rejection is moot since claims 1 is now patentable in view of the foregoing amendment and remarks. Claims 13 and 17, which incorporate all the limitations of claim 1, are therefore patentable as well. Reconsideration, and removal of the obviousness rejection of claims 1, 13, and 17 over Hellmann in view of Merritt is therefore respectfully requested.

CONCLUSION

Applicants respectfully submit that the Application and pending claims are patentable in view of the foregoing remarks. A Notice of Allowance is respectfully requested. As always, the Examiner is encouraged to contact the Undersigned by telephone if direct conversation would be helpful.

Respectfully Submitted,

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